

97084/00013 (STEVENS 3.0-002 (CIP))

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In repatent application of

Group Art Unit 1724

Xiaoguang Meng, et al.

Examiner: To be Assigned

Serial No.: 10/803,170

I hereby certify that this correspondence and/or fee is being deposited, with sufficient postage, with the United States Postal Service as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450,

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Confirmation No. 4161

(Date of Deposit)

Filed: March 17, 2004

APPARATUS AND METHOD FOR WATER TREATMENT BY A DIRECT CO-PRECIPITATION/

FILTRATION PROCESS

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INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the provisions of 37 C.F.R. §§1.97 and 1.98, Applicants and their attorney respectfully request that the following patents, foreign patent publications, and other publications, copies of which are attached hereto, be made of record in the official United States Patent and Trademark Office file relating to the present application. The citation of the following patents, foreign patent publications, and other publications should not be construed as an admission that they constitute statutory prior art with respect to the present invention.

## U.S. Patents

3,511,488 4,152,143 4,201,573 4,422,943 4,303,441 4,724,084 5,403,490 5,660,733

## **Publications**

Andre DuPont; "Lime Treatment of Liquid Waste Containing Heavy Metals, Radionuclides and Organics, National Conference on Management of Uncontrolled Hazardous Waste Sites", 7<sup>th</sup> edition, Production Engineering, April 1997, pp. 84-88. 57.

- L.E. Early et al., "Chromate Removal from Aqueous Wastes by Reduction with Ferrous Ion", Environ Sci. Technol., 1988, Vol. 22, No. 8, 1988. pp. 972-977.
- Robert C. Cheng et al., "Enhanced Coagulation for Arsenic Removal", J. AWWA, 1994, Vol 86(9), pp. 79-90.
- Mark M. Benjamin et al., "Metals Treatment at Superfund Sites by Adsorptive Filtration", EPA/540/R-93/515, 1992.
  - D. Jarog et al., "Adsorption and Filtration with Oxide-Coated Granular Activated Carbon", American Chemical Society Meeting, April 5-10, 1992; pp. 711-714.
  - Marc Edwards et al., "Adsorptive Filtration Using Coated Sand: A New Approach for Treatment of Metal-Bearing Wastes", Journal WPCF, 1989, Vol. 61, No. 6, pp. 1523-1533.
    - John F. Martin et al., "Demonstration of Microfiltration Technology", J. Waste Management Association, 1991, Vol 41., No. 12, pp. 1653-1657.
- W. Y. Chen et al., "Recovery and Recycle of Metals From Wastewater With a Magnetite-Based Adsorption Process", Research Journal WPCF, 1991, Vol. 63, No. 7, pp. 958-964.
  - Dimitris Dermatas et al., "Removal of Arsenic Down to Trace Levels by Adsorptive Filtration", 2<sup>nd</sup> Specialized Conference on Pretreatment of Industrial Wastewaters, 1996, pp. 191-198.
  - Gordon P. Treweek, "Optimization of Flocculation Time Prior to Direct Filtration", Journal AWWA, 1979, pp. 96-100.
  - Michael R. Collins et al., "Evaluation of Factors Affecting Performance of Direct

Filtration", J. Environ. Eng., 1987, Vol. 113 (2), pp. 330-334.

John R. Bratby, "Optimizing Manganese Removal and Washwater Recovery at a Direct Filtration Plant in Brazil", J. AWWA, 1988, pp. 71-81.

Xiaoguang Meng, "Effect of Component Oxide Interaction on the Absorption Properties of Mixed Oxides", Ph. D. Thesis, Department of Civil and Environmental Engineering, Syracuse University, 1993.

In order to facilitate the Examiner's citation of the patents and patent publications listed above, Applicants' attorney has completed United States Patent and Trademark Office Form PTO/SB/08a. The completed form is attached hereto for the Examiner's convenience.

It is believed that no fee is due in connection with the submission of this Supplemental Information Disclosure Statement. If any such fees are due, the Examiner is hereby authorized to charge them to Deposit Account No. 501402.

Respectfully submitted,

McCARTER & ENGLISH, LLP

By: William Smith

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NWK2: 1237588.01

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INF	ORMATIC	N DISC	LOSURE	Filing Date	March 17, 2004	
STA	TEMENT	BY APP	PLICANT	First Named Inventor	Xiaoguang Meng et al.	
• • • •				Art Unit	1724	
	(use as many :	sheets as nec	essary)	Examiner Name	To Be Assigned	
Sheet	1	of	3	Attorney Docket Number	97084/00013 (Stevens 3.0-002)(CIP)	

				U.S. PAT	TENT DOCUMENTS	
Examiner Initials*	Cite No.1	Document Nu Number K	Kind Code	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 3,511,488	(if known)		R.A. Stubblefield	
		US- 4,152,143			Kausel et al.	
		US- 4,201,573			Nissen	
		US- 4,422,943			Fender et al.	
		US- 4,303,441			Lamisse	
		US- 4,724,084			Pahmeier et al.	
		US- 5,403,490			Desai	
		US- 5,660,733			Deskins	
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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Under the Reservork Reduction Substitute for company of the Complete if Known 10/803,170 **Application Number** INFORMATION DISCLOSURE Filing Date March 17, 2004 STATEMENT BY APPLICANT **First Named Inventor** Xiaoguang Meng et al. Art Unit 1724 **Examiner Name** To Be Assigned (use as many sheets as necessary) of Attorney Docket Number 97084/00013 (Stevens 3.0-002)(CIP) Sheet 3

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		ANDRE DUPONT; "Lime Treatment of Liquid Waste Containing Heavy Metals, Radionuclides and Organics, National Conference on Management of Uncontrolled Hazardous Waste Sites", 7th edition, Production Engineering, April 1997, pp. 84-88. 57.	
		L.E. EARY et al., "Chromate Removal from Aqueous Waste by Reduction with Ferrour Ion", Environ Sci. Technol., 1988, Vol 22, No. 8, 1988, pp. 972-977.	
		ROBERT C. CHENG et al., "Enhanced Coagulation for Arsenic Removal", J. AWWA, 1994, Vol 88(9) pp. 79-90.	
		MARK M. BENJAMIN et al., "Metals Treatment at Superfund Sites by Adsorptive Filtration, EPA/540/R-93/515	
		D. JAROG et al., "Adsorption and Filtration with Oxide-Coated Granular Activated Carbon", American Chemical Society Meeting, April 5-10, 1992, pp. 711-714	
		MARC EDWARDS et al., "Adsorptive Filtration Using Coated Sand: A New Approach for Treatment of Metal-Bearing Wastes", Journal WPCF, 1989, Vol. 61, No. 6, pp. 1523-1533.	
-		JOHN F. MARTIN et al., "Demonstration of Microfiltration Technology", J. Waste Management Association, 1991, Vol 41, No. 12, pp. 1653-1657.	
		W.Y. CHEN et al., "Recovery and Recycle of Metals From Wastewater With a Magnetite-Based Adsorption Process", Research Journal WPCF, 1991, Vol. 63, No. 7, pp. 958-964	
		DIMITRIS DERMATAS et al., "Removal of Arsenic to Trace Levels by Adsorptive Filtration", 2nd Specialized Conference on Pretreatment of Industrial Wastewaters, 1996, pp. 191-198.	
	:	GORDON P. TREWEEK, "Optimization of F locculation Time Prior to Direct Filtration", Journal AWWA, 1979, pp. 96-100.	
		MICHAEL R. COLLINS et al., "Evaluation of Factors Affecting Performance of Direct Filtration", J. Environ. Eng. 1987, Vol. 113 (2), pp. 330-334.	
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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INF	ORMATION	N DIS	CLOSURE	Filing Date	March 17, 2004	
STA	TEMENT	BY A	PPLICANT	First Named Inventor	Xiaoguang Meng	
	44	4		Art Unit	1724	
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Sheet	3	of	3	Attorney Docket Number	97084/00013 (Stevens 3.0-002)(CIP)	

Examiner	Cite	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of	2
initials*	No. <sup>1</sup>	the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		MICHAEL R. COLLINS et al., "Evaluation of Factors Affecting Performance of Direct Filtration", J. Environ. Eng., 1987, Vol. 113 (2), pp. 330-334.	
······		JOHN R. BRATBY, "Optimizing Manganese Removal and Washwater Recovery at a Direct Filtration Plant in Brazil", J. AWWA, 1988, pp. 71-81.	
		XIAOGUANG MENG,, " Effect of Component Oxide Interaction on the Absorption Properties of Mixed Oxides", Ph. D. Thesis, Department of Civil and Environmental Engineering, Syracuse University, 1993.	
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Examiner	Date	
Signature	Considered	
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